

II. Claim Amendments and Listing

1. (Original) A brake system for a linear actuator, comprising:

a guide rail;

a table including a slider which is guided by said guide rail for a motion along a length of said guide rail, said slider comprising a moveable slide block that is adapted to slide along a surface of said guide rail and is supported by said slider so as to be moveable toward and away from said guide rail surface;

a linear motor for actuating said table along said guide rail; and

a power actuator for selectively moving said moveable slide block toward said guide rail surface;

said moveable slide block sliding over said guide rail surface for a guiding action in a first state of said power actuator and bearing upon said guide rail surface for a braking action in a second state of said power actuator.

2. (Withdrawn) A brake system for a linear actuator according to claim 1, wherein said power actuator comprises a solenoid device for moving said slide block toward said guide rail surface when energized and a spring member for moving said slide block away from said guide rail surface when said solenoid device deenergized.

3. (Original) A brake system for a linear actuator according to claim 1, wherein said power actuator comprises a solenoid device for moving said slide block away from said guide rail surface when energized and a spring member for moving said slide block toward said guide rail surface when said solenoid device deenergized.

4. (Currently Amended) A brake system for a linear actuator according to claim 1, wherein said guide rail comprises a pair of mutually parallel guide rail members, and said ~~slider table~~ comprises a pair of laterally arranged slider members ~~sliders~~ in a corresponding manner.

5. (Currently Amended) A brake system for a linear actuator according to claim 4, wherein each of said guide rail members is provided with an upper surface and a pair of side surfaces each forming an acute angle with respect to said upper surface, and one of said ~~sliders~~ slider members is provided with a bottom surface engaging said upper surface, a fixed slide block engaging one of said side surfaces while said moveable slide block engaging the other of said side surfaces.

6. (Currently Amended) A brake system for a linear actuator according to claim 5, wherein the other of said ~~sliders~~ slider members is provided with a bottom surface engaging said upper surface, a pair of fixed slide blocks engaging the corresponding side surfaces of said guide rail.

7. (Currently Amended) A brake system for a linear actuator according to claim 6, wherein said ~~sliders~~ slider members are dimensioned in such a manner that when said power actuator is in said second state, said moveable slide block of ~~said one~~ of said slider members ~~slider~~ and one of the fixed slide blocks of said other slider member which is located in a symmetric position to said moveable slide block bear upon the corresponding side surfaces of said guide rail.

8. (Original) A brake system for a linear actuator according to claim 1, wherein a bearing member is interposed between said slide block and guide rail surface.
9. (Original) A brake system for a linear actuator according to claim 8, wherein said bearing member has a static frictional coefficient in the range of 0.15 to 0.25 with respect to the opposing surface.
10. (Original) A brake system for a linear actuator according to claim 8, wherein said bearing member comprises a porous carbon material prepared by sintering a mixture of plant-base carbon and phenol resin.